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#### ABSTRACT

In October 1988, a study was conducted at Prince George's Community College (PGCC) to investigate the performance of PGCC graduates on certifying examinations for nursing and allied health occupations since 1980. National professional organizations provided certifying exams and reported back results for all active PGCC allied health programs: Medical Isotope Technology, Medical Records Technician, Nursing, Radiographer, and Respiratory Care. Study findings included the following: (1) in 1987, 6 of the 8 Medical Isotope graduates who took the certification exam passed it, 7 of the 8 Medical Records graduates passed, 97 of the 110 Nursing graduates passed, 7 of the 15 Radiographer graduates passed, and all 6 of the Respiratory Care graduates passed; (2) the passing rates of the Respiratory Care, Medical Records, and Medical Isotope graduates met or exceeded national averages, while that of the Nursing graduates was 5% below the national average; (3) since 1980, Medical Isotope and Respiratory Care graduates have consistently achieved passing rates above national averages; (4) the passing rate for Medical Records graduates improved in 1987, after four years below the national rate; and (5) Nursing and Radiographer programs have consistently had pass rates below the comparable state or national norms. (AAZC)

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# PERFORMANCE OF PGCC GRADUATES ON LICENSURE AND CERTIFICATION EXAMINATIONS



PRINCE GEORGE'S
COMMUNITY COLLEGE

Office of Institutional Research and Analysis
Research Brief RB89-5
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# PRINCE GEORGE'S COMMUNITY COLLEGE Office of Institutional Research and Analysis

# LICENSURE AND CERTIFICATION EXAMINATIONS: PERFORMANCE OF PGCC GRADUATES

Research Brief RB89-5. October 1988

#### Introduction

Occupational programs in nursing and allied health are designed to prepare graduates for certification and immediate employment. National professional organizations provide certifying exams in all five active PGCC health programs: Medical Isotope Technology, Medical Records Technician, Nursing, Radiographer, and Respiratory Care. Results since 1980 of PGCC graduates on each exam are reported below.

#### Methodology

The organizations that administer certification examinations usually report exam results to the institutions where examinees received their training. The conventional measure used for program evaluation is the pass rate of first-time examinees on the entry level examination. Advanced practitioner examinations, given after employees have work experience, are generally not used for evaluating entry-level training programs since the results may reflect on-the-job training as much as the formal educational program. The results presented below reflect the examination performance of graduates sitting for the exams the first time. Most of those not passing on their first attempt will succeed in later attempts.

The feedback from the administering organizations often includes detailed score data permitting program faculty to assess curricular strengths and weaknesses. Raw and scaled scores on component subtests are provided for some tests.

Pass rates for PGCC graduates taking the entry-level certification exams for the first time in 1987 are reported below. In the next section, pass rates since 1980 are reported, along with national (Maryland for nursing) rates for comparison purposes.

## Most Recent Outcomes Indicators

The pass rates achieved by PGCC graduates taking the certifying examinations for the first time in 1987 were as follows:



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## Pass Rates of PGCC Graduates on Certification Examinations First-time Examinees, 1987

Program	Exam	Total Candidates	Number Passed	Pass Rate
Medical Isotope	ARRT-NMT	8	6	75%
Medical Records	ART	8	7	88%
Nursing	NCLEX-KN	110	97	88%
Radiographer	ARRT-Rad.	15	7	47%
Respiratory Care	CRTT	6	6	100%

The percent passing in Respiratory Care, Medical Records, and Medical Isotope met or exceeded national averages. PGCC's Nursing graduates achieved a pass rate five percentage points below the Maryland state average. Less than half of the Radiographer graduates passed their exam, compared to a national average of 87 percent.

# Time Series and Peer College Comparisons

In this section, the number of PGCC students taking each exam, the number and percent passing, and the comparable state or national pass rate, are presented for each program for every year since 1980. For Nursing, exam pass rates for four peer colleges are also shown.

#### Medical Isotope Technology

Graduates of the college's Medical Isotope Technology program are eligible to sit for the Nuclear Medicine Technology examination administered by the American Registry of Radiologic Technologists. The national annual pass rate for first-time examinees has ranged from 59 to 74 percent over the past five years. Graduates of PGCC's program have always done very well on the ARRT-NMT exams, achieving pass rates exceeding the national average every year. As shown in the table on the following page, for six of the past eight years, 100 percent of the PGCC first-time examinees passed the exam.



# Pass Rates, ARRT-NMT Examination First-time Candidates

Year	Total PGCC Candidates	Number <u>Passing</u>	Percent <u>Passing</u>	Nationwide <u>Pass Rate</u>
1987	8	6	75%	66%
1986	2	2	100%	59%
1985	6	5	83%	63%
1984	8	8	100%	74%
1983	11	11	100%	748
1982	8	8	100%	80%
1981	5	5	100%	81%
1980	7	7	100%	82%

Since 1980, 52 of 55 PGCC graduates (nearly 95 percent) have passed the ARRT-NMT exam on their first try.

## Medical Records Technician

Graduates of PGCC's Medical Records Technician program are eligible to sit for examinations to become Accredited Record Technicians. The American Medical Records Association administers the certification exams. Yearly results since 1980 have been as follows:

Pass Rates, Accredited Records Technician Examination First-time Candidates

<u>Year</u>	Total PGCC Candidates	Number Passing	Percent <u>Passing</u>	Nationwide Pass Rate
1987	8	7	88%	89%
1986	16	9	56%	83%
1985	3	2	67%	94%
1984	12	7	58%	83%
1983	1	0	0%	74%
1982	6	5	83%	718
1981	8	5	63%	83%
1980	9	8	89%	80%

In 1987, PGCC graduates did well, with 7 of 8 passing, similar to the national average. PGCC graduates had failed to match the national pass rate the four previous years.



## Nursing

Graduates are eligible to sit for the National Council Licensure Examination for registered nurse licensure (NCLEX-RN) administered by the Maryland Board of Nursing. The NCLEX-RN is a national test purchased from the National Council of State Boards of Nursing. For program evaluation purposes, the pass rate for candidates taking the exam for the first time is the conventional performance measure. NCLEX-RN pass rates for PGCC graduates and the Maryland statewide averages since 1980 have been as follows:

Pass Rates, NCLEX-RN Nursing Examination First-time Candidates

Year	Total PGCC Candidates	Number <u>Passing</u>	Percent <u>Passing</u>	Statewide Pass Rate
1987	110	97	88%	93%
1986	106	90	85%	91%
1985	96	83	86%	92%
1984	117	105	90%	90%
1983	103	88	85%	90%
1982	79	62	78%	92%
1981	101	81	80%	90%
1980	104	84	81%	87%

As can be seen, only in 1984 did PGCC graduates match the pass rate for all first-time candidates taking the exam in Maryland. Peer college comparisons over this period were as follows:

Pass Rates, NCLEX-RN, First-time Candidates
Peer College Comparison

Year	Anne <u>Arundel</u>	Catonsville	Essex	Montgomery	PGCC
1987	<b>97%</b>	<b>94%</b>	96%	95%	88%
	(65)	(120)	(77)	(76)	(110)
1986	<b>97%</b>	90%	92%	<b>94</b> %	85%
	(69)	(122)	(100)	(68)	(106)
1985	<b>97</b> %	<b>92%</b>	<b>9</b> 3%	9 <b>4</b> %	86 <b>%</b>
	(70)	(146)	(97)	(68)	(96)
1984	97%	95%	92%	95%	9 <b>0</b> %
	(74)	(107)	(108)	(81)	(117)
1983	<b>94</b> %	95%	91%	<b>97%</b>	8 <b>5%</b>
	(63)	(111)	(111)	(73)	(103)





# Pass Rates, NCLEX-RN, First-time Candidates Peer College Comparison

Year	Anne <u>Arundel</u>	<u>Catonsville</u>	Essex	Montgomery	PGCC
1982	<b>97%</b>	<b>96%</b>	<b>94%</b>	98 <b>%</b>	78 <b>%</b>
	(69)	(97)	(82)	(79)	(79)
1981	<b>95</b> %	90%	<b>94</b> %	95%	8 <b>0%</b>
	(58)	(91)	(87)	(64)	(101)
1980	9 <b>0</b> %	<b>90%</b>	88 <b>%</b>	97%	81%
	(58)	(93)	(91)	(74)	(104)

As shown in the above table, not once in the eight years did the pass rate of PGCC graduates equal the pass rates of any of the four peer colleges.

#### Radiographer

Graduates of the Radiographer program usually take the July Radiography examinations given by the American Registry of Radiologic Technologists. Yearly results for new candidates taking the July exams have been as follows:

Pass Rates, ARRT-Radiography Examination First-time Candidates

Year	Total FGCC Candidates	Number Passing	Percent <u>Passing</u>	Nationwide <u>Pass Rate</u>
1987	15	7	47%	87%
1986	7	4	57%	88%
1985	9	2	228	87%
1984	8	6	75%	88%
1983	8	5	63%	87%
1982	18	14	78%	88%
1981	13	5	38%	90%

Although PGCC graduates have had difficulty with the ARRT-Radiography exams on the first attempt, most become certified on subsequent attempts. Faculty follow-up indicates that only 2 of the 65 graduates since 1982 have not obtained certification.



## Respiratory Care

Graduates are eligible to sit for the entry-level licensure examination to qualify to be Certified Respiratory Therapy Technicians. Performance of first-time candidates on the CRTT exam is conventionally used for program evaluation purposes. Pass rates since 1980 have been as follows:

#### Pass Rates, CRTT Examination First-time Candidates

Year	Total PGCC <u>Candidates</u>	Number <u>Passing</u>	Percent <u>Passing</u>	Nationwide <u>Pass Rate</u>
1987	6	6	100%	65%
1986	10	8	80%	65%
1985	16	15	94%	76%
1984	12	10	83%	71%
1983	21	17	81%	74%
1982	14	10	71%	75%
1981	6	5	83%	75% 78%
1980	7	7	100%	70s 798

PGCC Respiratory Care graduates achieved pass rates above the national rate in every year but 1982.

#### Summary

Performance on certification examinations is only one measure of a program's success. Student success in employment and further education are other indicators, documented elsewhere. Certification exam performance is one of the more meaningful assessment tools, as preparation for the examinations and certification is an explicit goal of all five programs considered.

Medical Isotope and Respiratory Care have consistently achieved pass rates above national averages. Medical Records improved in 1987, after four years below the national rate. The Nursing and Radiographer programs have consistently had pass rates on certification exams below the comparable state or national averages.

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